

## CHAPTER 9- PUBLIC FACILITIES & UTILITIES

### ■ INTRODUCTION

The purpose of this chapter is to plan for the future infrastructure needs of the County, excluding transportation requirements. Public facilities include schools, parks recreational facilities, libraries, health and human services, and public safety. Public utilities basically encompass sewer, water, and solid waste management. This chapter will identify current and future facility and utility needs, establish broad and develop a general plan for implementation to achieve the County's facility and utility goals.

The County's primary goal for community facilities, services, and utilities is to provide for the physical, cultural, and public safety needs of the County. The following goals relating to public facilities and utilities are stated in Chapter 1 of this Plan in conjunction with the Plan's other goals, are the basis for this Public Facilities and Utilities Plan:

Goal #5 "To concentrate and guide growth in and around Service Districts and Villages."

Goal #6 "To plan for necessary public facilities and utilities through public and private cooperation within those areas presently containing services, and to establish priorities for service implementation in those areas presently not served. (See following note.)"

Goal #8 "To effect economical and efficient use of public funds by planning for a rate of growth which will achieve the goals of the County and will not exceed the ability of the County to provide services to its citizens."

Note: On December 7th 1993 the Fauquier County Board of Supervisors passed by unanimous vote a resolution regarding the provision of public water and sewer service to the New Baltimore, Catlett, Calverton, and Midland Service Districts. The resolution included the following three points:

1. That the Board of Supervisors states that it is the goal of this Board to provide public water and sewer services to the New Baltimore, Catlett, Calverton, and Midland Service Districts as soon as possible in keeping with the revised Comprehensive Plan;
2. That the Board policy shall be to assist, promote, and implement this goal through all fiscally prudent means, including public-private partnerships prior to the year 2000, the Board realizing that this policy will necessitate careful planning of growth pasterns to integrate these Service Districts together into a comprehensive utility system; and
3. That the goal of public services in those Service Districts shall enjoy one of the highest of priorities of the Board and all of the County Boards, Commissions, Authorities, Departments, and employees.

Projections for future population growth are included in Chapter 3 and Chapter 6 identifies the County's service districts where growth has been planned; for these Service District Plans to be effective, public facilities and utilities plans, including a Master Water and Sewer Plan, should be implemented to support the projected growth and recommended development patterns. Well conceived and properly implemented plans will not only ensure the success of the Service Districts, they will ensure the proper distribution of services throughout the entire County.

## ■ GENERAL PLAN FOR IMPLEMENTATION

Two key components for the effective implementation of the goals and policies of the chapter and the Plan are the facilities manual and the Capital Improvements Program (CIP).

The first component is a facilities manual. This manual is a general guide to assist the public and the development community in determining the policies which apply to land development in the County. It contains information primarily concerned with the design and construction standards and guidelines for improvements related to subdivisions and site plans.

The second component the Capital Improvements Program, as authorized is under the Code of Virginia. The CIP identifies and plans for specific infrastructure projects in conjunction with financing methods and construction schedules. Properly composed and followed as a fiscal planning document, the CIP should prevent large oscillations in the tax rate, and should improve the timely and economical provision of infrastructure. The Director of the Office of Management and Budget is responsible for the development of the CIP. All operating departments will necessarily be involved in the formulation and annual updating of the CIP.

The content of the CIP should be guided by the facility plans as they are developed and fiscal management guidelines as adopted by the Board of Supervisors. With a facility plan in place, the CIP should become a more precise planning document.

## ■ FISCAL MANAGEMENT GUIDELINES

The County should plan to allocate a reasonable portion of its resources to provide infrastructure for the planned population. Like many aspects of planning, or governmental budgeting in general, this allocation of resources can best be seen as working to attain a proper balance between the interests of the present and the future citizens of the County. The mechanisms for considering and deciding such issues are the facilities plan and the Capital Improvement Program.

While recognizing the need to provide adequate facilities, it is imperative that the County maintain a sound fiscal posture to the economical and efficient use of public funds. Listed below are the fiscal

management guidelines which are currently in place in Fauquier County. Similar benchmarks have been used by Fauquier County since initiating the Capital improvements Program in 1967.

1. Annual debt service, as a percentage of annual general fund revenues, should not exceed 10% with two to three year fluctuations not to exceed 12%.
2. Approximately 5% of annual general fund revenues should be targeted for capital expenditures.
3. The County will seek to limit debt per capita to \$1,579.00 in 1993 dollars.
4. The County will seek to limit debt as a percent of the true market value of taxable real estate to 2 and 1/2%.
5. The County will seek to maintain an un-obligated fund balance of 5% of annual general fund revenues.

## ■ POLICY GUIDELINES

The following policies are recommended to guide the facility and utility planning for the County:

### *General*

1. Public utilities should be planned to meet the needs of the Service District as they have been planned in Chapters 3 and 6 of this Plan.
2. Public facilities and services should be sited in a manner which will efficiently and economically serve the greatest number of residents while keeping within the plans for the County growth as presented in this Plan.
3. All public facilities and utilities should be designed and developed so as to limit environmental degradation.
4. The County should adopt a Facilities Plan, which identifies needed specific public facility/utility projects and the timing thereof. This Plan should extend for a period of up to ten years and be updated bi-annually.
5. A Capital Improvements Program should be adopted to implement the Facilities Plan by providing specific scheduling and financing strategies for each project.
6. Facilities should be appropriately planned to provide adequate levels of services.
7. Gas/petroleum products pipelines and electrical transmission lines should be grouped in

designated utility corridors where appropriate to avoid scattered placement of these utilities in the County.

8. Radio/communication and towers/relay stations should be located in groups where appropriate to protect the County from an unnecessary scattering of these towers.

#### *Administration and Courts*

9. Due to its central location, the Town of Warrenton will continue as the primary location for government services.
10. New facilities should be located so that adequate space remains on-site for future expansions and so that departments which may interrelate in clientele or activities are located in close proximity to one another.
11. Multiple use/satellite public facilities should be developed wherever such facilities would make the delivery of services more efficient. Such facilities are planned in the Marshall and Bealeton/Remington areas.
12. In developing the proposed Downtown Warrenton Government Center, each construction phase should be seen as an integral part of the overall plan.
13. A long range Master Plan for the proposed Downtown Warrenton Government Center should be adopted to guide the development of new facilities. This plan should include proposed facilities, a proposed road network, parking, pedestrian access, landscaping, and streetscape design.

#### *Fire and Rescue*

14. Fire and Emergency Medical Service cover age in the more rural areas of the County should be improved through the adoption of mutual aid/response agreements with all adjoining counties.
15. Develop alternative and stable funding sources to enable volunteer departments to adequately serve the increasing demand for services.
16. Increase public awareness and interest in the volunteer system.
17. Encourage public participation through fire prevention, safety, and Cardio Pulmonary Resuscitation (CPR) courses.
18. Implement the E-911 system and the associated uniform street addressing system.

#### *Libraries*

19. Expand the library system capacity at a rate which parallels the population growth.
20. Where possible, the County should locate future library branches in, or in close proximity to, satellite government facilities.

#### *Parks and Recreation*

21. The Plan for Parks, Recreation, and Open Space should undergo an annual evaluation and review to note changes in conditions, needs, trends, funding, and effectiveness of the plan.
22. The Plan for Parks, Recreation, and Open Space should undergo a major update creating a “new” plan based on a survey to be done prior to the updating as well as information accumulated from the annual reviews. An additional section should be added for evaluation of the implementation of the plan during the past five years.
23. The critical, issues that are identified as recommendations in the Plan for Parks, Recreation, and Open Space shall be considered as priorities for the Department in its planning and operations.
24. The Parks and Recreation Department shall, within constraints and climate, give top priority to mandates, and then focus on:
  - District and community parks and greenways more than neighborhood and pocket parks;
  - Specialty parks on a case-by-case basis;
  - Higher levels of need more than lower levels;
  - Existing needs more than future needs;
  - Adequate maintenance and support more than acquisition, and acquisition more than development; and,
  - Encouragement of private sector provision of facilities more than public/private partnerships, and public/private partnerships more than public ventures.

#### 24A. New Baltimore Service District

- Where feasible, co-locate parks and recreational facilities with school sites.
- Integrate the trail system to be developed within the Waterfield community, into Vint Hill, existing and future school sites, and the network planned for the Service District.

- Promote the use of walkways and linked open spaced.
- Sidewalks shall be provided on at least one side of an urban collector when either new collector roads are constructed, or major road improvements are undertaken.
- Promote direct access to the trail network from activity centers such as schools, commercial areas, or recreational facilities.

#### *Public Safety*

25. Locate public safety offices in satellite government center facilities.
26. Ensure adequate and timely response to calls for assistance.

#### *Schools*

27. Permanent school facilities in the County should correspond to the growth of student enrollment. New schools which are built to meet current needs should be located and designed to serve the long-range needs of the school system.
28. The County should utilize the most efficient grade grouping throughout the school system in order to effectively distribute pupil population to available facilities.
29. The school system should be planned to accommodate three high schools with locations in or near Marshall, Warrenton, and Bealeton, wherever possible elementary and junior high schools should be located in neighborhoods.
30. School property should serve other community purposes where possible.

#### *New Baltimore Service District*

- Ensure that school capacity, community integrity and travel times are key considerations for identifying new sites and school facilities.
- Priority consideration is given to expanding and existing schools within County and State student enrollment standards.
- Where practical, new middle and elementary schools should be co-located with existing middle and/or elementary schools. Co-location of middle schools with elementary schools can provide programmatic benefits.
- The acquisition of school sites should be accompanied with the provision of sewer services. If a new school for the New Baltimore Service District is located in an area not planned for public

sewer, the sewer line will then be sized only to serve that school facility, with no other connections allowed.

- Recreational facilities available at school site should be made available for community-wide use.

#### *Sewer*

31. Provision of adequate sewer facilities should be in keeping with the goals and objectives of the Comprehensive Plan.
32. The County should explore cooperative efforts with neighboring counties for the effective treatment of sewage.
33. In accordance with the Comprehensive Plan's goals and objectives, public sewer should be made available to those properties located within the service districts where economic, physical, environmental or other limitations do not make public water infeasible. Such provision of services should be a part of an overall utilities plan which utilizes phasing of services in a financially sound manner.

#### *Solid Waste*

34. Facilities for solid waste disposal should be provided in a timely fashion allowing new facilities to come "on-line" prior to old facilities closing. In addition, new facilities should be sized so to provide sufficient life to the site and therefore avoid a continuous solid waste facility siting process.
35. The County should strive to extend the life of current and future solid waste disposal sites

#### *Water*

36. Groundwater resources should only be utilized to the extent that they can be maintained at a constant level of replenishment.
37. The County should continue to study water alternatives for the future. Surface water impoundments will be examined as one of the alternatives.
38. In accordance with the Comprehensive Plan's goals and objectives, public water should be made available to those properties located within the service districts where economic, physical, environmental or other considerations do not make public water infeasible. Such provision of services should be a part of an overall utilities plan which utilizes phasing of services in a financially sound manner.

## ■ THE PLAN FOR ADMINISTRATIVE SPACE, COURTS, SUPPORT FACILITIES, AND HEALTH AND HUMAN SERVICES

### *Existing Facilities*

The Courthouse Area in the Town of Warrenton has long been the focus for public business in Fauquier County. It is the center for administration of justice, general government, schools, and the legislative decision-making process. Being the focal point for public business, the Courthouse Area is given special consideration to ensure that adequate space is provided and that an environment is established which will create a sense of pride for the citizens of Fauquier.

In July of 1990, the Board of Supervisors contracted to purchase approximately three acres of land in Downtown Warrenton. This purchase will secure the County's long range commitment to keep Fauquier County's public business focused in Downtown Warrenton.

As the Fauquier County Government evolves over the next twenty years, many changes are anticipated. To accommodate these changes, the County has divided government functions into two general categories, Health and Human Services and Administration, courts, and support facilities.

### *Health and Human Services*

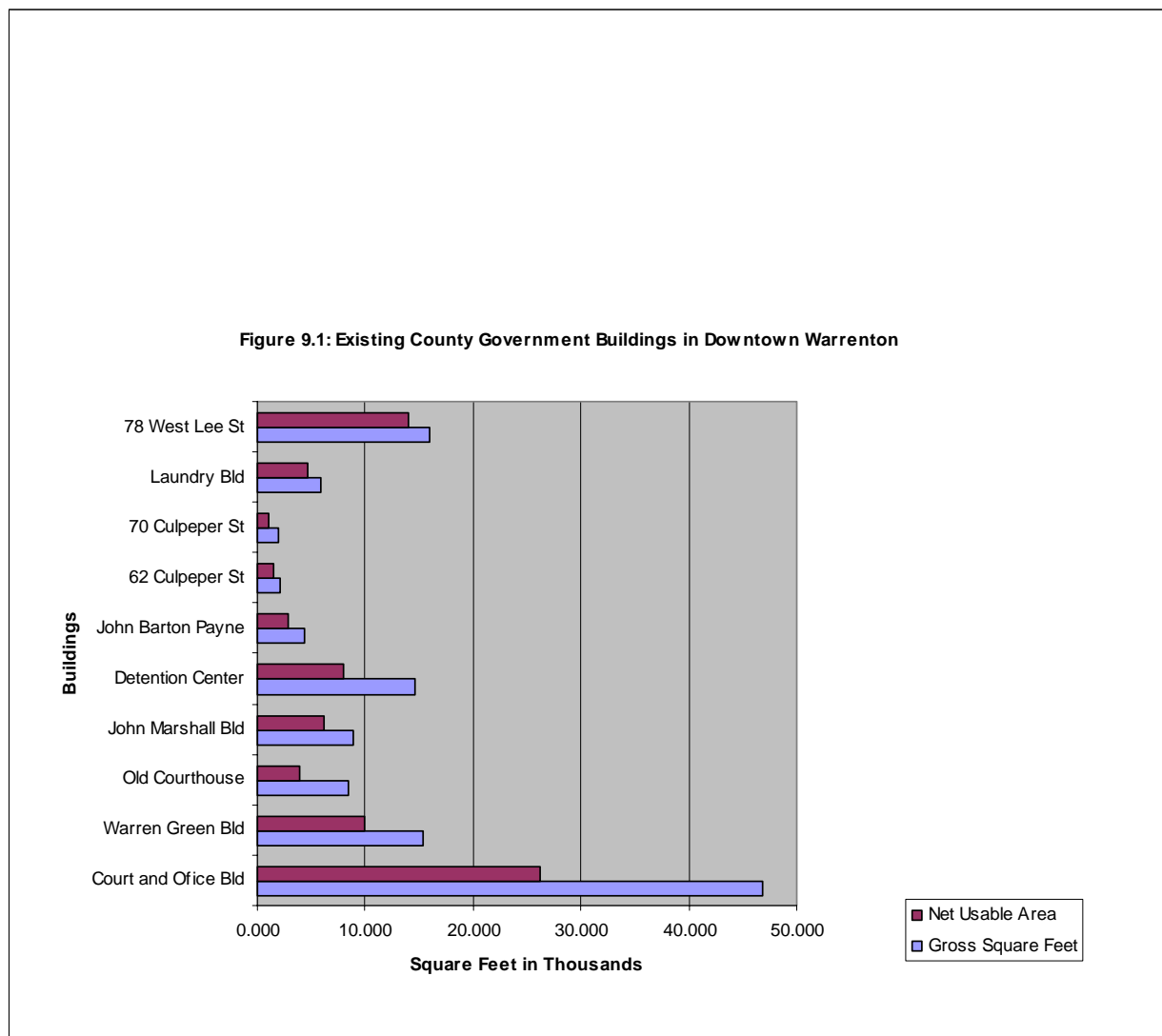
Health and Human Services includes human service activities, social services, the County Health Department, family guidance and other agencies which may fall under the Health and Human Services function. Currently, Health and Human Services are located in approximately 8,000 square feet of space in the SPR building on Hospital Hill.

### *Administration, Courts, and Support Services*

The Administration, Courts, and Support Facilities offices house all other County functions not included in the Health and Human Services Category. The Board of Supervisors, in reviewing the placement of County offices, has elected to keep the County's primary presence in the Downtown War area.

The County currently owns approximately 8.34 acres in Downtown Warrenton; 3.60 acres are occupied by existing County Government facilities. The County plans to use the remaining 4.74 acres for future expansion of the Government Center and has purchased an additional 2.1 acres in Downtown known as the Fletcher and White property and the 78 West Lee Street Building. The additional property will enable the County to construct an estimated 500,000 square feet of additional office space in Downtown Warrenton. [Map 9.1](#) represents the County's land holdings in Downtown Warrenton; Figure 9.1 identifies the square footage of the County's land holdings.





### *Courts and Related Services*

The County is examining the feasibility of locating a judicial center complex on County property adjacent to the existing detention facility and 78 West Lee Street. The existing detention center is deficient in terms of capacity and has limited expansion potential. Of the existing Courthouse, 86 percent is currently used for offices while court rooms are located in two additions to the building. Expansion of the existing Courthouse might compromise Courthouse security. The proposed judicial center would house the three courts, detention facilities, and related administrative and support services.

### *General Government Administration*

The administrative element of the County Government is currently located in different places. Ideally, having all pertinent administrative functions at one location would better serve the County residents both in terms of accessibility as well as timeliness in the processing of business. It is anticipated that space needs can be accommodated in the Downtown Warrenton area for many years. [Map 9.2](#) shows the

approximate locations of existing County land holdings, possible future acquisitions in Downtown Warrenton, and a general schematic plan for their use.

#### *Actions Needed*

1. Reserve and purchase sufficient land and facilities to accommodate future expansion of existing and planned facilities in Downtown Warrenton.
2. Remove and/or renovate dilapidated structures. This will improve the appearance of the Courthouse property, make space available for new construction, as well as eliminate safety hazards.
3. Preserve and maintain historic structures in the Courthouse area. This action will help preserve Fauquier County's heritage and also provide a visual amenity and focus for the Courthouse and Government Center complex.
4. Minimize and eventually eliminate County functions which are located in leased space. This will save funds expended on lease agreements, provide for more centrally located facilities, and will be more convenient for the general public.
5. Develop a long range phased Master Plan for the Downtown Warrenton area to accommodate the future needs of the Courts and Administration Offices. Such facilities should be sited in a manner that does not eliminate or interfere with future expansion. This plan should include a defined plan for roads, parking, pedestrian access, and landscaping.
6. Monitor increased space demand of General Administration and Courts to determine timing of new facilities. Such assessments may be presented to the Board in a bi-annual facility needs report.
7. Complete an analysis of local detention center needs to include size, type, and location. Such an analysis should include construction and situation criteria which will enable the detention center to be expanded in order to accommodate long term use.
8. Locate the future site of the County Detention Center.

## ■ THE PLAN FOR FIRE AND RESCUE

### *Introduction*

The volunteer tradition of the fire and rescue services is strong in Fauquier County. While many localities have been forced to provide paid services, Fauquier County continues to rely on individuals to provide these services without payment. Such volunteerism in turn helps to keep the County tax rate low. If

Fauquier County were forced to provide paid services, the costs for such a system would greatly affect the taxes of its citizens.

While the volunteer tradition remains strong, many factors that forced other jurisdictions to staff stations with paid personnel are now facing the volunteer system in Fauquier County. As more people work outside the County, fewer people are able to volunteer their time to provide services. A shortage of manpower led to the addition in 1992 of career personnel through the Office of Emergency Services especially critical during daytime hours. As the County grows and demand for services increases, some departments will become harder pressed to meet the demands. Additionally, some departments are finding it increasingly difficult to meet their financial needs. Increases in demand do not always result in a corresponding increase in contributions. This results in equipment disrepair and operational cutbacks. As a result of the Catlett Amtrak accident, and the introduction of career personnel, the County has established a contract with the County's Fire and Rescue Association and the Volunteer Fire Companies.

The volunteer fire and rescue system is a tremendous asset to the County. However, the system may be approaching the point in time where demands exceed the capabilities of the system. The response of the volunteers and the County to the pressures facing the system will determine the future effectiveness of the system. The volunteers and the County must work together to ensure the adequate provision of fire and rescue services while minimizing the cost to the taxpayers.

#### *Existing Facilities and Operations*

Currently the County has thirteen departments which are broken down into seven fire departments, three rescue squads, and three combined departments. Table 9.1 is a listing of the thirteen Fire and Rescue Departments as recognized by the County.

Table 9.1: Fire and Rescue Departments	
Department Name	Company No.
Warrenton Volunteer Fire Department	1
Remington Volunteer Fire Department and Rescue Squad	2
Marshall Volunteer Fire Department	3
The Plains Volunteer Fire Department & Rescue Squad	4
Upperville Volunteer Fire Department	5
Warrenton Volunteer Rescue Squad	6
Catlett Volunteer Fire Department	7
Goldvein Volunteer Fire and Rescue Department	8
Marshall Volunteer Rescue Squad	9
New Baltimore Volunteer Fire Department	10
Orlean Volunteer Fire Department	11
Cedar Run Volunteer Rescue Squad (Catlett)	12

## Lois Volunteer Fire Department

13

Source: Fauquier County.

These departments protect most of the County with Loudoun County providing services for a small area near Middleburg. Two federal installations, Vint Hill Farms (Company 20) and the Warrenton Training Center (Company 19), provide fire protection for these government facilities as well as provide assistance to the County's departments. [Map 9.3](#) and [Map 9.4](#) show the approximate coverage area for the County's existing fire and rescue departments. Table 9.2 shows the area in square miles and estimated population served by each Department.

Table 9.2: Department Service Areas

Fire		Rescue	
Dept. No.	Area (Sq. Mi.)	Dept. No.	Area (Sq. Mi.)
1	100.2	2	10730
2	67.7	4	44
3	93.7	6	155
4	44	8	22.5
5	51	9	213.4
7	93.3	12	93.3
8	22.5	Loudoun	24.5
10	26.8		600
11	92.2		
13	39.3		
Loudoun	24.5		
Other	4.8		
	660		

Source: Fauquier County.

Fauquier County has entered into formal mutual agreements with the surrounding counties of Culpeper, Prince William, Rappahannock, Stafford, and Loudoun. These agreements provide for inter-jurisdictional assistance for the supply of equipment and manpower. There are at present no agreements with Warren and Clarke counties.

The County's Fire and EMS departments also provide services to areas in adjoining counties. The Remington and Warrenton departments provide services in eastern Culpeper County, which is far removed from Culpeper departments; Upperville provides fire protection to southwestern Loudoun County.

### *Locations*

The location of fire and rescue facilities to date has primarily been a response to citizen concerns of inadequate protection. Groups of citizens, with the County's consent, organized fire and rescue

departments in response to the perceived and/or recognized inadequacies that existed in the system. While development of the system has been piecemeal, the current system appears to provide the County with adequate protection. However, in the future, the County cannot and should not permit piecemeal development.

The National Board of Fire Underwriters has developed guidelines for the location of fire stations. These standards, however, are more applicable to urban paid systems than rural volunteer systems. Studies have shown that fire losses increase in direct correlation to response times. Recognizing this, fire stations need to be located in rural areas where they can: 1) maximize service areas; 2) are close to sources of volunteers; and 3) minimize response times.

All of the existing stations, with the exception of Lois, are located in villages or towns. Fire protection services throughout the County are generally in keeping with current demand. Notable exceptions are in the far western and southwestern portions of the County.

In lieu of capital improvements, certain operational procedures and policies could be implemented to improve response times in the area. Several Rappahannock and Warren County departments are located near Fauquier County. An agreement has been made with Rappahannock County allowing its departments to respond in Fauquier County.

The County has also reduced the time allowed to get a piece of equipment “on the road” from eight minutes to three minutes. Another policy change would be to dispatch two companies to each call instead of one. This is currently being done for rescue units. Structural fires require the dispatch of multiple companies during daytime hours when manpower is short and responses delayed.

#### *Future Needs Analysis*

The future location of Fire and EMS stations should be in response to the demand for those services. Much of the growth the County has been experiencing recently has been on the fringe of existing fire protection areas. Currently, the areas which are of most concern are Bealeton-Midland Opal, and the Route 602/605 corridor area.

In designating future station locations, care should be given to locate stations so that they will: 1) serve areas where demand is not adequately being met; 2) be located to maximize access to a coverage area; and 3) be able to provide services to other coverage areas as needed.

The New Baltimore Fire Company is considering the addition of an ambulance. The company currently provides EMS service as a first responder agency only. Such co-location of EMS and fire services should be encouraged to maximize effectiveness and minimize capital investment.

*Personnel*

Recruiting and retaining sufficient personnel to provide continuous fire and rescue protection is proving to be increasingly difficult. The County's population is increasingly comprised of people who migrate out of the County to work or families in which both adults work. This category of residents has historically not had sufficient time available to offer themselves for public service.

Many of the existing Fire and EMS personnel do commute out of the County to work, and this has limited the time available for volunteer work. Personnel who work in the County often find they are not allowed to answer emergency calls during work hours. The State's training requirements combined with department responsibilities often take a toll on personnel who feel they can, no longer commit the necessary time.

As a result of these and other factors, the, availability of emergency personnel is highly variable. The daytime hours are especially critical for many departments which may depend on two or three people to answer emergency calls. Other departments have problems 24 hours a day, necessitating members to cover several duty shifts per week.

The availability of personnel, while a concern to most departments, became critical in 1991 throughout the County. This personnel shortage problem was partially addressed. A program which would attract new personnel as well as retain existing ones is now in progress.

Such an effort should include all fire and rescue departments and the County government if the personnel problem is to be solved.

*Training*

Within the last decade, state and federal governments have become much more involved in developing and regulating training programs for fire departments and rescue squads. Whereas only minimal training standards existed in the early seventies, rigorous training programs now exist requiring 85 hours for a basic Firefighter I class and 110 hours for basic Emergency Medical Technician class. Advanced Firefighter III and Cardiac Technician classes require appreciably greater hours of training.

Today's training in both services is also much more specialized than fifteen years ago. Firefighter classes have been developed for officers, pump operators, hazardous materials, and ladder truck operations. EMS classes have been developed for emergency vehicle operations, vehicle extrication, hazardous materials, and elevated rescue.

To date, rescue squads have been held much more accountable for training than fire departments. The Virginia Department of Health has established mandatory requirements for training, equipment standards,

certification, and recertification processes. All of the various requirements must be met before an ambulance and the personnel can operate.

The State Department of Fire Programs, while having developed standards for training and equipment, does not have mandatory requirements. Fire departments are not required to follow the State standards. On the local level, this may lead to vast differences in ability; skills, knowledge, and equipment between departments following State guidelines and those which do not.

The Fauquier County Fire and Rescue Association has a training committee which coordinates fire service training for the County. The response to the training offered has improved over the last five years. This is an area the Fire and Rescue Association should further study and develop as the future quality of the service depends upon. An effectively trained membership.

#### *Actions Needed*

1. Develop and adopt a policy requiring the County to utilize a formalized site selection process for new facilities.
2. Monitor the geographical distribution of the County's population, including commercial and industrial development, and emergency incidents, to assess future service needs.
3. Pursue efforts to obtain a single County-wide communication system for all agencies.
4. Develop an incentive and benefits program to encourage and perpetuate volunteerism.
5. Work with the Fire and Rescue Association, developers, commercial and industrial property owners, and homeowners associations to develop an adequate and stable funding source for the volunteer departments.
6. Continue to work with Clarke and Warren Counties to augment the fire and rescue services to the County.

#### *Actions Needed (New Baltimore Service District)*

It is recommended that a site be reserved at Vint Hill for a fire and rescue facility for the future commercial, research and development, and residential community planned onsite and in the immediate environs. This site reservation should be for one to three acres. At a minimum, this facility would need to include a pumper truck and an ambulance. This facility could be planned in the long-term to provide 24-hour service and supplement services that are provided through the New Baltimore Fire and Rescue Company. [Map 9.2.2](#) illustrates a proposed location for this facility.

## ■ THE PLAN FOR LIBRARIES

### *Introduction*

The Fauquier County Public Library System has long provided recreation, education and information services for all Fauquier citizens. A MIS SION STATEMENT, adopted by the Board of Trustees in January 1990, declares the library's purpose:

“It is the purpose of the Fauquier County Public Library to provide and promote library materials and services that meet the individual interests and needs of the residents of Fauquier County. Special emphasis is placed on providing current, high demand, high-interest materials in a variety of formats for all ages and on providing collections and services which encourage young children to develop an interest in reading and learning. Emphasis is also placed on providing informational materials and services to support personal interests and formal educational needs.”

The library is open 61 hours per week, May through September, and 57 hours per week, June through Labor Day. The library is governed by a five member Board of Trustees. Board members are appointed by the Board of Supervisors for four year terms.

### *Existing Facilities*

#### John Barton Payne Building

Built in 1923, the John Barton Payne Building at 2 Court House Square in Old Town Warrenton is named after the Judge who originally donated \$25,000 to construct the building for the struggling Warrenton Library Association. After serving over 60 years as a library site, the 4,000 square foot building was renovated in the mid-1980's to house a community room on the upper floor and storage/office space on the lower level.

#### Main Library

The main library is housed in a 16,000 square foot renovated 1929 commercial structure at 11 Winchester Street. The library features a Children's Room with program area and centralized administration and support offices on the first floor. The second floor focuses on adult materials including comprehensive reference and research resources. The main library serves as a central location for purchasing, processing, and circulation of materials among the library system.

#### Bealeton Branch

Designed to house a small popular library collection for adults and children, the Bealeton Branch Library opened in February 1991 in a 1,600 square foot storefront space in the Bealeton Village Shopping Center.



The Bealeton area was selected for the first branch site because of the dynamic growth in this service district and the convenient central location of the shopping center.

The growth of patron use statistics makes evident the popularity of the convenient storefront Bealeton Branch. With the lease on this storefront space due to expire in the winter of 1994, the Library Board of Trustees is considering possible alternatives to the present site.

### Marshall Branch

To bring convenient library service to Northern Fauquier, space has been reserved for a future library branch in the County owned Marshall Annex building. The future Marshall Branch is part of the County's Capital Improvement Program (CIP) to be addressed in FY '95. The addition of a Marshall Branch library will allow Fauquier County to meet minimum state standards for library space and access.

### *Activities*

The Fauquier County Public Library maintains a collection of over 102,000 items. Approximately 8,600 of these materials are available from the Bealeton Branch. In addition to providing a wide variety of materials in many formats, the Fauquier County Public Library offers specific services and collections for differing needs. Books on Tape, Large Print Books, a New Reader Collection for adults just learning to read, educational videos, periodicals, and the Parents Shelf are a few of the specialized resources available to County residents. Reference assistance, children and adult programming, plus inter-library loan service from neighboring library systems are a few of the many patron services offered. Reciprocal Borrowers' Privileges are also available with several area libraries. An active Outreach Department coordinates monthly deliveries of appropriate library materials to county day care, preschool, and elderly care facilities.

### *Future Facilities Plan*

Virginia State Library service guidelines for citizens of the Commonwealth indicate that libraries in rural settings (serving a population density of 1,000 per sq mile or less) should have a facility within a 30 minute drive of all residents. Additionally, minimum guidelines recommend that 0.6 square feet of library space per capita should be available.

Today in Fauquier County (because of library facilities located in Warrenton and Bealeton) residents of Lee, Center, and Cedar Run districts are all within a 30 minute drive to a library. Most residents of Scott and Marshall districts, however, must travel more than 30 minutes to reach a public library. The addition of the Bealeton Branch in 1991 and the renovation of the Main Library in 1993 brought total library space available to 0.45 square feet per capita, just short of the minimum recommended standard.

*Actions Needed*

The County should plan to expand the library system, at a rate which, parallels the population growth and base allocation of new space in accordance with cost-benefit analysis. The County should locate future library branches in satellite government facilities where possible and appropriate in order to provide convenient library services to the entire County.

It is recommended that a one (1) to three (3) acre branch library be planned and sited within New Baltimore. Such a facility could serve multiple purposes, including meeting space for civic organizations and clubs. The Library Board needs to develop criteria and location preferences for such a site.

## ■ THE PLAN FOR PARKS AND RECREATION

*Introduction*

The Fauquier County Parks and Recreation Board is dedicated to the enhancement of the quality of life for all people in Fauquier County. Working in a partnership with the people, the Department shall provide the leadership to assure that citizens receive high quality recreational facilities and services.

*New Baltimore Service District*

An integral component in the functionality of a community is the movement of pedestrians. Recognizing that not all members of a community have access to a vehicle, it is important to provide those citizens without an automobile a convenient and safe way to move about the community. By increasing one's mobility options, so too is their quality of life. In response to this need, a Parks and Trails Plan has been developed for the New Baltimore Service District. This plan seeks to achieve three (3) goals. They are:

1. To provide a safe, convenient and aesthetically pleasing environment responsive to all population, age and health groups, through a network of trails which enable the movement of individuals by foot, bicycle and horseback;
2. To provide recreational opportunities; and
3. To take advantage of existing natural amenities (i.e. river courses, ravines) in the community.

The trail network is organized into three (3) classes of trails.

**Class 1** trails are separate lanes on a road designated for bicycle use; they are paved, hard-surface paths;

**Class 2** trails are physically separated from motorized vehicles; these trails can have either asphalt or gravel surfaces;

**Class 3** trails are loose gravel or dirt surface trails and can be used for multi-recreational purposes (walking, bicycling, horseback riding). For the most part, these trails are proposed within the floodplain areas and along South Run.

### *Existing Facilities*

The Recreation Resources Inventory of the Parks and Recreation Department's Comprehensive Plan for Parks and Recreation, and Open Space identifies both private and public resources. The private sector presents an enormous range of leisure options to Fauquier citizens. It is the role of the public sector to address those areas of greatest need or demand for services. The chart in Appendix F indicates the existing facilities, which primarily address needs where there is not a real business opportunity.

### *Future Needs Analysis*

The Comprehensive Plan for Parks, Recreation, and Open Space inventoried existing available recreational resources and measured them against established standards per population unit. Those standards were derived from national and State recreation agency planning standards, with an eye on neighboring municipalities, taking into account local recreation deficiencies and preferences. From these analyses, strengths and weaknesses were quantified and recommendations developed.

More intensive use of existing resources will correct a portion of Fauquier's facility deficit. However, to bring Fauquier up to the standards outlined in this study, some additional park land will need to be acquired. New parks can meet the dual goal of facility location and open space preservation if these parks are located where population density occurs.

Within the Vint Hill Preferred Reuse Plan, there is a  $\pm 20$  acre regional park proposed which will contain athletic fields and facilities, as well as a  $\pm 17$  acre densely-wooded park. In addition to the park/recreational amenities to be developed within the Waterfield community, this plan proposes three (3) park areas in the Service District. As shown on [Map 9.4.2](#), these parks are to be established in the vicinities of Snow Hill, the Gerber tract situated west of Waterfield, and along South Run north of Lake Brittle.

### *Actions Needed*

The Board of Supervisors through the Comprehensive Plan amendment process should consider for adoption the Parks and Recreation Comprehensive Plan for Parks, Recreation, and Open Space as an element of this Public Facilities and Utilities Plan Chapter.

For the New Baltimore Service District, the following actions are recommended:

- Establish Class 1 trails through right-of-way purchase associated with new road construction

and/or major road improvements.

- Establish Class 2 and 3 trails through voluntary easements or right-of-way acquisition.
- Acquire parkland dedications in conjunction with rezoning, special exception and other land development applications, as appropriate. Preferred locations for new parks and associated facilities are shown in [Map 9.4.2](#).
- Where practical, county parks/recreation facilities should be co-located with school locations.

## ■ THE PLAN FOR PUBLIC SAFETY

### *Introduction*

Law enforcement in Fauquier County is the responsibility of the County Sheriff's Office. Additional responsibilities of the Sheriff's Office included the following: Court Security, Civil Process Service, and Detention Center Operations including the daily operation of the Detention Center and related functions (transportation, work release, community services).

### *Existing Facilities*

The present facility housing the Sheriff's Office includes administrative offices, Criminal Investigations, D.A.R.E. headquarters, Animal Control Operations, Property and Evidence sections, Patrol Operations, and Civil Process. The Communications Center is located on the ground floor of the building and (after some re-configuration) will become the "Joint Dispatch Center," headquarters for the County's 911 system. The Magistrate's Office, General Services, Office of Emergency Services, and the County Finance Department share space in this building as well.

The Sheriff's Office is solely responsible for the operation of the Fauquier County Detention Center, a fifty-three bed facility located adjacent to the Administrative building. The facility has been operating at nearly double its rated capacity for the last two years.

There is currently a feasibility study being done to establish the prospect of building a Judicial Center on the property adjacent to the existing Detention Center. This facility would encompass the Detention Center as well as address the needs, both current and immediate future, of the Courts and related support functions (clerks' offices, Commonwealth Attorneys etc.). This facility would not only satisfy the needs of the Sheriff's Office and the Judiciary but provide tremendous potential expansion capabilities for the general county offices as well.

### *Personnel*

The Sheriff's Office employs 86 personnel divided into eight divisions as shown in Table 9.3.

Table 9.3: Sheriff's Office Personnel

<u>Administrative Division</u>	<u>Criminal Investigation Division</u>	<u>Detention Center</u>	<u>Patrol Division</u>
Sheriff	Lieutenant	2nd Lieutenant	Lieutenant
Major (Chief Deputy)	Sergeant	5 Sergeants	2nd Lieutenant
Captain	2 Investigative Sergeants	13 Deputies	5 Sergeants
4 Lieutenants*	6 Investigators	1 Health Care Professional	6 Corporals
3 2nd Lieutenants*	1 Secretarial	2 Civilian Food Service Spec.	10 Deputies
4 Secretarial Staff*			
<u>Civil Process Division</u>	<u>Community Services</u>	<u>Animal Control</u>	<u>Communications Center</u>
Lieutenant	Corporal	Chief	Chief Dispatcher
Sergeant	Deputy	Warden	8 Communications Spec.
6 Deputies			
1 Secretary			

\* Positions are distributed within other divisions.

Source: Fauquier County Sheriff's Office.

There are 5 patrol squads working in shifts to provide coverage 24 hours daily. The shifts are 10 hours and configured in such a fashion as to provide overlaps during “peak” times to better serve the needs of the community. All Sheriff's Office Personnel are subject to emergency call and often respond from home to assist as needed.

The Sheriff's Office has divided the County's 660 square miles into three patrol areas (North, Central, and South). In addition the County has been divided into 44 individual grid areas to better track criminal activity and to assist in targeting specific areas for Community Policing during the overlap or “Power Shifts.” Current statistics indicate that the calls for service have been approximated as 20% - North; 30% - Central; and 50% - South. The southern region of Fauquier County having experienced the majority of growth in the last few years has caused this percentage to rise and, it is anticipated that this trend will continue both in growth and in calls for service. Average response time is approximately ten minutes under ideal circumstances.

The Sheriff's Office personnel are augmented by the Virginia State Police with eleven units serving the Fauquier County area. The State Police function primarily in accident investigation and speed enforcement on the state highways.

### *Facilities Plan*

Location of the Sheriff's Office and other support functions in the Warrenton area is an appropriate central repository for records and administrative functions. As County population continues to increase, it

will be necessary to locate “substations” in both the northern and southern districts of the County to meet the increased calls for service. There is currently a “substation” in the Marshall area consisting of a room with a phone. Within this planning cycle it will become imperative that facilities be secured and staffed as permanent 24 hour satellite offices. These facilities will need to include interview rooms, radio communications, telephone access, security or holding cell areas, and fuel facilities for the vehicles.

#### *Actions Needed*

The County should develop and approve locations, plans, and staffing for satellite sub-stations in Marshall and the Bealeton/Remington areas. The County should also continue with the planning and construction of the Judicial Center to address the needs of the Detention Center as well as the Court System. And finally, the County should monitor and assess future staffing needs in conjunction with increased calls for service and projections based on growth and changes in the County (or immediate surrounding areas) that may affect law enforcement directly or indirectly.

### ■ THE PLAN FOR SCHOOLS

#### *Existing Facilities*

The school system currently consists of 10 elementary schools (grades K-6), 4 junior high schools (grades 7-9), and one high school (grades 10-12) as shown in [Map 9.5](#). The Fauquier County School System had a total student membership of 8,529 as of September 30, 1993. The present student capacity of the school with trailers is 8,929 and 7,567 without trailers, the numbers are broken down as shown in Table 9.4 (all capacity studies include the usage of modular classrooms (trailers) with the exception of Fauquier High School).

Table 9.4: School Capacity	
Elementary Schools with Trailers	5,077
Elementary Schools without Trailers	4,364
Elementary Schools Membership 9/30/93	4,876
Junior High Schools Capacity with Trailers	2,189
Junior High Schools Capacity without Trailers	1,843
Junior High Schools Membership 9/30/93	2,050
Fauquier High School Capacity with Trailers	1,663
Fauquier High School Capacity without Trailers	1,360
Fauquier High School Membership 9/30/93	1,603
Total School Capacity with Trailers	8,929
Total School Capacity without Trailers	7,567
Total Membership as of 9/30/93	8,529
Source: Fauquier County Public Schools.	

The school system has adopted the following grade configuration to begin with the opening of Liberty

High School in September of 1994: elementary schools K-5, middle schools 6-8, and high schools 9-12. The opening of this facility and the Capital Improvements Plan adopted by both the School Board and the Board of Supervisors will alleviate the capacity problems for both the high school and elementary school population for the remainder of this decade. There will continue to be an over-capacity student population at the middle school level.

#### *Future Needs*

Membership needs for the period of time are difficult to predict accurately due to the changing nature of the demographics of migration patterns (both in-migration and out-migration) affecting the County. It appears that the most reliable method of growth projection for the County is to utilize a five-year base of student membership and apply the Cohort Survival Methodology. Using this formula, growth rates are based on actual membership for grades K-12, tracking each class's total to the next grade level. The only assumed variables are the growth rates for incoming kindergarten and special education membership. Based on actual membership (September of each year) and past factors, a growth rate of 2%, 3%, and 4% have been applied to incoming kindergarten and special education membership. Growth rates for all other grades are determined by the Cohort Survival Methodology, which is based on five years.

These growth projections have been the basis of determining the facility needs of the school system in coordination with the program capacity study that was completed during the 1991-92 school year and is updated on a yearly basis. This data is used by the school system in projecting the future needs of the school community for the decade.

#### *Actions Needed*

Expand the use capacity of the school system as shown in the adopted Capital Improvements Program (renovations and additions of elementary schools, completion of Liberty High School, and renovations of Fauquier High School).

In order to alleviate this overcrowding at the middle school level, it will become necessary to either expand the existing or build another middle school.

Lead time for construction of a new middle school is usually between two and three years. Middle school capacity (without trailers) is presently exceeded but can be contained with the use of the present modular classrooms to allow for timelines. However, design and location should be carefully studied and put in place to meet this required lead time.

Plans to expand the use capacity of the middle schools have become part of the Capital Improvements Program beginning in the 1999-2000 fiscal year. Continued evaluation of development trends and school enrollment should be considered prior to the acquisition of land for future school sites.

As part of the New Baltimore Service District (NBSD) Citizen Planning Committee process, C. Hunter Ritchie and P.B. Smith Elementary Schools were identified as providing key educational and recreational resources for the community. C. Hunter Ritchie Elementary School is located on a 29 acre site in the northeast quadrant of the Route 600/676 intersection. While it has a student program capacity of 583, it currently has 464 students enrolled. P.B. Smith is located on a 26.3 acre parcel along Route 605, and has a student program capacity of 564. It has an existing enrollment of 476 students.

As a result of anticipated residential development at build-out and based upon state standards, the NBSD will need new sites for an elementary school (20 acres), middle school (30 acres) and high school (50 acres). Over the next 5-10 year period, the Fauquier County Public Schools Capital Improvement Program Summary identifies the established need for a new middle school (2004-2005) and high school (2006-2008), and the NBSD is a prime candidate for both facilities due to existing and anticipated population growth. Potential locations for these school facilities are identified in [Map 9.2.2](#).

- Acquire school site dedications in conjunction with rezoning, special exception and other land development applications as appropriate. As noted above, to meet the land use requirements and district population expected at full built-out, the County will need sites for one high school site ( $\pm$  50 acres), one Middle School ( $\pm$  20 acres). Preferred locations for these facilities are marked on [Map 9.2.2](#).
- The following general location and design standards are recommended for school sites to be dedicated to the County:
  - a. Centrally located for ease of access for student populations and reduce the need for busing;
  - b. Adequately buffered from roads, non-residential uses and operations hazards;
  - c. Located in such a way that woodlands and natural areas serve as buffers between school operations and adjoining uses;
  - d. Allow safe and convenient access to the local road network; and
  - e. Should not include major floodplain, drainage ways, or major utility easements.
- School locations should be co-located with County parks where practical.
- When school sites proffered through the rezoning application process are dedicated to Fauquier County at the final plan of subdivision stage, then the following requirements are recommended:



- a. Provision of the approved zoning application's conceptual development plan designating the proposed school site.
- b. Provision of the specific boundaries of the proposed site(s) with plat(s) at a 1"=50' scale showing accurate topography at 2-foot contours.
- c. Identify all steep slopes of greater than 15%, floodplain and wetland areas.
- d. Identify any restrictive covenants which would affect construction on any proposed school site.
- e. Provide easements which are being planned by the developer on the proposed school site(s).
- f. Identification of developer financial contributions to offset any undue construction or site development costs.
- g. Identification of the net usable land remaining for construction after deducting the following:
  - Floodplain;
  - Slopes in excess of 15%;
  - Proposed rights-of-way for public streets;
  - Easements;
  - County setback requirements; and
  - Special Buffer Areas (e.g. Resource Protection Areas).
- h. If significant stormwater runoff (five [5] acres or greater) from off-site runs through the proposed school site, a sufficient amount of off-site topography must be provided to allow a thorough evaluation.
- i. If a stormwater facility across the proposed site is necessary due to off-site drainage, the developer must provide an estimate of materials and associated costs.
- j. Identify pedestrian or street crossings provided by the developer to the proposed school site.
- k. Identify surrounding roads and boundaries in order to determine whether any

construction or rights-of-way dedication will be required of Fauquier County Schools.

- l. Any proposed school site must have adequate access to existing or proposed public streets.
- m. Identify proposed sidewalks to the specific site in order to minimize school busing requirements (e.g. proposed sidewalks within a mile radius of the school.)
- n. Identify special buffer areas required by Fauquier County or designed within the approved rezoning application.

## ■ COUNTY WATER AND WASTEWATER MASTER PLAN

In 1995 in keeping with a long-standing recommendation of the Comprehensive Plan, the County contracted with the engineering firm, Camp Dresser & McKee to prepare a Countywide Water and Sewer Master Plan (WSMP). The WSMP was completed in 1996 and on July 15, 1997 was formally adopted by the Board of Supervisors as a component of the Fauquier County Comprehensive Plan. The WSMP is not replicated in this chapter, but it is incorporated by reference except for those areas which have been designated as non-sewered or non-watered growth areas by separate provision of this Comprehensive Plan.

The adopted WSMP sets forth a plan for the orderly expansion of water and wastewater systems to meet anticipated growth in each of the County's Service Districts for the period of 1996 through 2015. This plan presents:

1. Evaluations of existing systems operated by the WSA;
2. Water demand and wastewater flow estimates based on the growth projections contained in the Comprehensive Plan;
3. Project descriptions and maps of the recommended water supply, storage and distribution facilities over the planning period of 1996 through 2015; and
4. Project descriptions and maps for the recommended wastewater collection, transmission and treatment facilities for the same planning period.

It is the purpose and intent of the Water and Sewer Master Plan to specify the size and general location of water distribution and sewer collection and transmission systems. In order to allow reason able flexibility in sizing and locating of lines and other facilities, deviations will be allowed without requiring formal amendments to the Water and Sewer Master Plan and the Comprehensive Plan providing, however, that

such changes are approved by the Water & Sanitation Authority. Deviations to the Water and Sewer Master Plan may also be required where economic, physical, environmental or other considerations arise, which make public water and sewer infeasible.

## ■ THE PLAN FOR SEWAGE DISPOSAL FACILITIES

### *Existing Facilities*

In many respects, development in Fauquier County in the service districts hinges on the adequate and timely provision of sewer services. Sewage handling and treatment facilities are one of the key factors which distinguish the Service Districts from the Villages and Settlements and Rural Areas. Sewer services allow development to be concentrated at densities which, in the absence of adequate waste handling facilities, are impossible. In order to achieve the goals and objectives of the Comprehensive Plan which attempt to guide growth to the service districts, sewer facilities in the service districts are required except in those areas of the service districts where the provision of water and other public services may not be feasible due to economic, physical, environmental or other considerations that arise which make public sewer infeasible. Sewage facilities are necessarily dependent upon water availability and should also be coordinated with transportation and provision of other public facilities.

Currently, the County has three sewage treatment facilities which are located in Marshall, Remington, and Warrenton. The Vint Hill Army Station operates a facility which handles the effluent from the base only. The Fauquier County Water and Sanitation Authority (WSA) owns and operates the facilities in Marshall and Remington, and the Town of Warrenton owns and operates the facility in Warrenton. Table 9.5 indicates the treatment capacity and facility types of the existing systems.

Table 9.5: Existing Sewage Treatment Facilities

Location	Treatment Capacity (Million Gallons per Day)	Facility Type
Marshall	0.320*	Advanced Secondary Treatment
Remington	1.4	Advanced Secondary Treatment
Warrenton	2.5	Advanced Secondary Treatment

\* Permitted for 0.640 MGD

Source: Fauquier County Water and Sanitation Authority.

The Marshall facility is presently operating at approximately 64% of capacity.

The Remington facility, which serves both the Bealeton and Remington service districts and the Town of Remington, is operating at approximately 95% of capacity. The plant has undergone expansion to 1.4

MCD (million gallons per day), an 87% increase in plant size.

The Warrenton facility has recently completed an expansion to accommodate 2.5 MGD. According to the Town of Warrenton's estimates, it has sufficient capacity for the build out of the Town and approximately 400 additional equivalent residential connections it is contemplating providing to selected areas adjacent to the present Town limits.

The Vint Hill facility has been in operation since the 1950's. The last major upgrade to the system was in 1979. Although the facility currently is rated for up to 246,000 GPD, significant renovations to this system would be required to attain this capacity. Consequently, the Vint Hill Farms Economic Development Authority is contemplating replacing this old plan with a new facility to treat Vint Hill sewage and potential sewage from other areas of the New Baltimore Service District, upon taking over Vint Hill. Vint Hill is subject to the Occoquan Policy and although the majority of the system was in place prior to the enactment of the Policy; any renovations or expansions would have to be in accordance with the Policy; In sum, conformance to the Occoquan tertiary treatment standards would not be required for this wastewater treatment facility until its capacity reached 1.0 MGD.

#### *Impact of the Occoquan Policy*

Implementation of various sewage plans which have been proposed over the last twenty years for the County's service districts have been restricted primarily by the Virginia Water Control Board's Occoquan Policy which was adopted in 1971. In addition to the Occoquan Policy another restriction has been the withdrawal of federal grant money for facility construction. While alternative means of financing can be achieved, the restrictions and requirements of the Occoquan Policy have proven to be obstacles which are difficult to overcome.

The purpose of the Occoquan Policy is to affect a reduction in the amount of nutrients going into the Occoquan Reservoir, which borders Fairfax and Prince William counties on Occoquan River. This impoundment serves as an important source for drinking water for the greater Northern Virginia region. In order to prevent undue nutrient loadings from other sewage treatment facilities, the policy sets forth restrictions on the number of treatment plants allowed in jurisdictions falling within the watershed boundary. The policy also mandates the effluent standards and construction requirements for these plants. Each member of the impacted jurisdictions also participates in a sophisticated stormwater management program aimed at reducing non-point source (over land) nutrient runoff from urban land uses.

Within existing policy, Fauquier County could develop a regional sewage treatment facility serving its portion of the watershed. This area includes most of the service district around Warrenton and Midland, and all of the New Baltimore, Calverton, and Catlett service districts.

Any waste treatment facility in the Occoquan would be required to be built to the strict standards of the Policy which focuses on removal of nitrogen and phosphorus in addition to levels of BOD5 (five day biological oxygen demand), COD (chemical oxygen demand), suspended solids, and chlorine residuals. In addition to the advanced technology required to handle the adequate control of these substances, there are also requirements for backup power sources and system redundancy. All of these requirements, even on a small-scale, mean high costs for building such a plant.

#### *Wastewater Flow Projections*

In 1996 the Fauquier County Board of Supervisors approved amendments to Chapter Three of the Comprehensive Plan to extend the population projections through the year 2015 and to incorporate minor population reallocations. These revised population projections, and the commercial and industrial acreage shown in the Comprehensive Plan, were used as the basis for determining and projecting the wastewater flow that needed to be handled for each Service District. Wastewater flow projections are shown on Table 9.6A.

**Table 9.6 A: Wastewater Flow Projections by Service District (MGD)**

Service Districts	Projected Average Day Flow by Year			
	2000	2005	2010	2015
Marshall/The Plains	0.352	0.534	0.723	0.919
Remington/Bealeton (Includes Opal)	0.783	0.944	1.159	1.384
Calverton	0	0.028	0.078	0.147
Catlett	0	0.028	0.065	0.118
Midland	0	0.109	0.221	0.347
New Baltimore (Includes Vint Hill)	0.375	0.847	1.09	1.291
Opal (Included in Remington / Bealeton)	0.071	0.147	0.229	0.311
Warrenton	1.291	1.141	1.576	1.75

Source: Adopted *Fauquier County Water and Sewer Master Plan*, Dated March of 1997, Prepared by Camp Dresser & McKee.

#### *Wastewater System Master Plan Major Recommendations*

Wastewater Master Plan recommendations are made for each Service District. Several Service Districts are slated for initial service during the planning period. For these Service Districts, the initial interceptor system is recommended along with additional projects which need to be completed by developers in order to serve undeveloped areas further out in the system. The associated costs for the recommended projects for each Service District are summarized in Table 9.6B. Specific major recommendations by Service District are detailed below.

**Table 9.6 B: Fauquier County Water and Sanitation Authority Wastewater System Recommended Project Cost Estimates**

Service District	1996-2000	2001-2005	2006-2010	2011-2015	Total
Bealeton				\$205,000	\$205,000

Calverton		\$435,000			\$435,000
Catlett		\$2,085,000			\$2,085,000
Marshall	\$650,000		\$8,070,000		\$8,720,000
Midland	\$2,845,000				\$2,845,000
New Baltimore	\$630,000	\$7,500,000	\$4,500,000		\$12,630,000
Opal					—
Remington				\$4,155,000	\$4,155,000
Warrenton					—
Total	\$4,125,000	\$10,020,000	\$12,570,000	\$4,360,000	\$31,075,000

Source: Adopted *Fauquier County Water and Sewer Master Plan*, Dated March of 1997, Prepared by Camp Dresser & McKee.

### *Marshall*

A Sanitary Sewer Evaluation Survey (SSES) should be performed along with associated repairs made to reduce the level of infiltration/inflow occurring in the system. Such action should help restore existing system capacity. Upgrading of the treatment plant may also be required during the planning period and is projected for the 2006-2010 timeframe.

### *Opal, Bealeton and Remington*

No major upgrades are required for this system during the planning period. Expansion of the Remington WWTP from 1.4 mgd to 2.0 mgd may be required prior to the year 2015. The upgrade will consist primarily of mechanical equipment changes.

### *New Baltimore, Vint Hill and Warrenton*

Five alternatives were evaluated to provide service to these areas:

1. Expansion of the Vint Hill WWTP;
2. Construction of a new WWTP on Kettle Creek;
3. Construction of a regional pumpover to the Prince William County Service Authority (PWCSA) system for conveyance to the Upper Occoquan Sewerage Authority (UOSA) plan in Fairfax County;
4. Construction of a regional pumpover to a new WWTP on Cedar Run near Catlett; and,
5. Construction of a series of pump stations to convey flow to the Remington WWTP.

### *Catlett, Calverton and Midland*

Five alternatives were evaluated to provide service to these areas:

1. Construction of non-discharging systems at Catlett and Calverton;
2. Construction of a new WWTP on Cedar Run near Catlett;
3. Construction of a regional pumpover to the Prince William County Service Authority (PWCSA) system at Nokesville for conveyance to the Upper Occoquan Sewerage Authority (UOSA) plant in Fairfax County;
4. Construction of a series of pump stations to convey flow to the Remington WWTP; and,
5. Construction of a series of pump stations to convey flow to a new WWTP near Midland on Marsh Run.

## ■ THE PLAN FOR WATER

### *Existing Facilities*

Currently there are eight major water systems in the County and many smaller systems which serve villages, settlements, or rural subdivisions. By far the largest is the Warrenton system which serves the Town of Warrenton as well as portions of the adjacent Service District in the County. The Town system is also the only system in the County that currently relies on surface water as its primary source.

Requirements for water systems are as follows:

*A minimum of 400 gallons of water per day per connection; Wells must produce a minimum of 0.55 gallons per minute per connection; That a system's pressure be 20 psi at each connection; That a system's storage Capacity be equal to one half of the total daily demand; and Generally the existing system capacity is twice the storage capacity.*

As of the Spring of 1994 there was little excess capacity in any of the existing water systems in the County. The taps, distributed in various areas of the County, are presented in Table 9.7.

Table 9.7: Existing Water Taps

Location	Number of Taps
Remington Ridge	13
Bealeton	773
Catlett	59
Marshall	9
New Baltimore	1396
Opal	79
Paris	39
Remington	49
The Plains	114
Turnbull	31
The Meadows	43
Whitewood Forest	5

Source: Fauquier County Water and Sanitation Authority.

In addition to the wells outlines above, there are a number of free standing systems which exist to serve village areas or rural subdivisions. Most of these systems are owned and operated by the WSA. However, a few are owned and operated by individuals. These free standing systems are presented in Table 9.8.

Table 9.8: Free Standing Water Systems	
Owner/Operated	Location
WSA	Remington Ridge
WSA	Auburn Crossing (New Baltimore)
Private	Bethel Academy
Private	Canterbury-Drysdale (Opal)
WSA	Edgehill (Opal)
WSA	English Meadows (Opal)
Private	Lakeway (New Baltimore)
WSA	Route 744 (Marshall)
WSA	Salem Church (Marshall)
WSA	Turnbull
Private	Waterloo Estates (Warrenton)
WSA	Whitewood Forest
WSA	The Meadows

Source: Fauquier County Water and Sanitation Authority.

These freestanding systems exist generally due to subdivisions of property inside of the Service Districts which result in lots of less than one acre. Such subdivisions are required by the Subdivision Ordinance to provide a central water system and must have the system certified by the State Health Department. It is the responsibility of the property developer to construct the system, and then to offer it to the WSA. Then the WSA will assume the tide for the system and become responsible for the system's operation and maintenance. When such systems are not accepted by the WSA they become the responsibility of a homeowners association or a similar body. Experience has taught, however, that operation of these types of water systems by developers, homeowners' associations, or similar bodies has often been problematic, and where possible, systems should be required to be placed in public ownership by the WSA.

Presently the New Baltimore water system is under considerable stress, in terms of water quantity. Unless new sources of groundwater are located, many systems may be operating in excess of the sustainable yield of the groundwater aquifer.

#### *Water Demand Projections*

In 1996, the Fauquier County Board of Supervisors approved amendments to Chapter Three of the Comprehensive Plan to extend the population projections through the year 2015 and to incorporate minor



population reallocations. These revised population projections and the commercial and industrial acreage shown in the Comprehensive Plan were used as the basis for determining and projecting the water demand required for each Service District. Water demand projections for service districts are shown on Table 9.9A.

Table 9.9 A: Water Demand Projections by Service District (MGD)

Service Districts	Projected Average Day Flow by Year			
	2000	2005	2010	2015
Bealeton	0.392	0.482	0.577	0.679
Calverton	0.000	0.029	0.076	0.143
Catlett	0.012	0.041	0.077	0.129
Marshall	0.223	0.391	0.565	0.745
Midland	0.000	0.110	0.221	0.347
New Baltimore	0.653	1.021	1.232	1.415
Opal	0.092	0.167	0.248	0.329
Remington	0.073	0.136	0.201	0.269
Warrenton	1.271	1.382	1.530	1.689
Source: Adopted <i>Fauquier County Water and Sewer Master Plan</i> , Dates March of 1997 by Camp Dresser & McKee.				

#### *Water System Master Plan Major Recommendations*

Following the demand projections and existing evaluations, the Water Master Plan was developed. The Water Master Plan presents a recommended plan and a map of projects for each Service District. The major recommendations for each Service District are described in the following sections, while Table 9.9b presents their project costs from 1996-2015.

Table 9.9 B: Fauquier County Water and Sanitation Authority Water System Recommended Project Cost Estimates

Service District	1996-2000	2001-2005	2006-2010	2011-2015	Total
Bealeton	\$415,000	—	\$355,000	\$200,000	\$970,000
Calverton	—	\$1,785,000	—	\$100,000	\$1,885,000
Catlett	—	\$315,000	\$220,000	\$710,000	\$1,245,000
Marshall	—	\$1,000,000	\$410,000	\$165,000	\$1,575,000
Midland	\$1,890,000	\$595,000	\$145,000	\$150,000	\$2,780,000
New Baltimore	\$729,000	\$1,235,000	\$705,000	\$1,025,000	\$3,694,000
Opal	\$1,770,000	\$420,000	—	\$150,000	\$2,340,000
Remington	\$370,000	\$580,000	—	\$150,000	\$1,100,000
Warrenton	—	—	—	—	—
Total	\$5,174,000	\$5,930,000	\$1,835,000	\$2,650,000	\$15,589,000

Source: Adopted *Fauquier County Water and Sewer Master Plan*, Dated March of 1997, Prepared by Camp Dresser & McKee.

#### *New Baltimore*

Additional supplies to be developed over the 20-year period include completion of the High Rock well;

connection to the Vint Hill system and use of the Vint Hill wells #1, 3, 4 and 5; full development and construction of wells in the GIH groundwater zone; and possibly construction of wells E-6 and E-7. A 5,000,000-gallon storage tank is recommended for the western service area near Route 605 and Atlee Road. Several projects are recommended to incorporate Vint Hill into the Rogues Road level and to extend the reach of the Vint Hill wells and elevated storage tanks and to increase internal system looping needed for reliability and system pressure.

#### *Bealeton*

Continued development of wells B-1, B-3 and B-4 is recommended as planned. B-3 will be the next well and may be required within the next few years, based on demand projections. The storage and distribution systems are in good condition and no major projects are recommended, although two potential storage sites in the eastern portion of the Service District have been suggested in case significant industrial activity occurs.

#### *Catlett*

Additional water supply is projected to be required in the 2006-2010 period assuming that central sewer service is provided around the year 2000 and that the projected growth occurs. Since no additional supply locations have been identified, a hydrogeologic investigation is recommended to identify additional groundwater supply sources. Potential sites for a second elevated storage facility are recommended, but this facility will not be required unless significant development occurs.

#### *Marshall and Remington*

These Service Districts have central water service provided by others. The Marshall Waterworks Company serves the portions of the Marshall Service District within its franchise area. The Town of Remington serves the portions of the Remington Service District within the Town as well as the areas west of the Southern Railroad. WSA systems in these Service Districts are small to those operated elsewhere. For each of these Service Districts, the plan recommends hydrogeologic investigations to identify potential groundwater supplies, an elevated tank location, and the establishment of expanded service to portions of the Service District that will be served by the WSA in the future.

#### *Calverton, Midland and Opal*

These Service Districts have either no current central service or small stand alone systems operated by WSA. For each of these Service Districts, the plan recommends hydrogeologic investigations to identify potential groundwater supplies, an elevated tank location and the establishment of backbone service or service to existing developed areas.

#### *Warrenton*

Water service within the Town and portions of the Warrenton Service District should continue to be

provided by the Town. A long- range plan for WSA to serve portions of the Service District was identified, and several projects to extend service into the area were also identified but it is not recommended that WSA construct these during the planning period. If constructed during the period, these will likely be developer funded. The recommended tank in western New Baltimore could provide the storage required to serve these ex tensions, if constructed.

## ■ THE PLAN FOR SOLID WASTE MANAGEMENT

### *Existing Facilities*

The goal of the General Services Department's solid waste management operation is to provide safe, environmentally sound, and convenient solid waste disposal and recycling facilities for use by County residents. This goal is currently achieved through the operation of one full service landfill and five satellite dumpster sites, all of which are equipped with recycling canisters. In addition, there are six other sites specifically for recycling located throughout the County.

The existing landfill off of Meetze Road consisting of forty-two acres has been operating since 1972, and is approaching the end of its useful life. The County has begun the official process to cease operations at the site and to locate a new facility.

### *Future Needs Analysis*

Due to the lack of good landfill sites and the expense of operating a land fill, the County should investigate all possible alternatives for reducing the waste stream to the landfill. A wide variety of alternatives exists from composting, to recycling. The County should place even greater emphasis on conservation and recycling. Mandatory separation could be an appropriate action and may become necessary.

Collection sites should be located so as to provide, within realistic economic constraints, maximum convenience to the citizenry and should offer a full range of recycling opportunities.

### *Actions Needed*

1. Continue to actively search for a new landfill site that meets siting criteria objectives, determined by both the Board of Supervisors and a professional site selection process, and provides for at least ten years of use.
2. Continue to investigate alternative technologies for solid waste disposal.
3. Increase efforts to encourage waste reduction. Education is the key. Examine the impacts and benefits of mandatory separation of waste.

4. Provide adequate collection sites to minimize illegal dumping.
5. Expand recycling opportunities at all collection sites.
6. This plan does not identify specific areas for future landfills in a map form. If future sites are needed, their location shall be deemed as being substantially in accordance with this plan, if a professional site selection process has been utilized, and the subject site has been accepted by the Fauquier County Planning Commission, and the Board of Supervisors.
7. Examine and identify new sites for dumpster/recycling facilities as new collection routes come online in the County. [Map 9.6](#) shows general locations of the existing and proposed recycling and dumpster sites.
8. Encourage businesses in Fauquier County to reduce the use of non-recyclable goods.